

EXHIBIT D

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION**

DALE H. HENCEROTH, et al.,	§	
	§	
Plaintiffs,	§	
	§	
v.	§	Case No. 4:15-cv-02591-BYP
	§	Judge Benita Y. Pearson
CHESAPEAKE EXPLORATION, L.L.C.,	§	
	§	
Defendant.	§	

**EXPERT REPORT
of
KRIS L. TERRY**

August 29, 2017

Introduction

1. My name is Kris Terry. I have been retained by Kirkland & Ellis LLP, counsel for Chesapeake Exploration, L.L.C. (“Chesapeake”), to express my opinions in the present matter. Specifically, I have been asked to address the leases at issue, Chesapeake’s marketing and sale of oil and gas from 411 wells associated with different gathering systems in Ohio, and the related commercial activities pertaining to such sales in the Utica Shale counties.

2. In addition, I provide background on the natural gas industry and the context in which the leases at issue were executed. I also discuss the market conditions as they existed at the time and the steps Chesapeake and its affiliate, Chesapeake Energy Marketing, L.L.C. (“CEMLLC”) undertook to address those circumstances.

Qualifications

3. I am the President of Kris Terry & Associates, Inc., a consulting firm in the oil and gas industry. I graduated from the University of Oklahoma with a bachelor of arts degree in 1976 and a juris doctorate in 1979. I have over thirty years’ experience in the oil and gas industry.

4. At the inception of my career I was responsible for natural gas contract administration for a major oil and gas producing company. Later, I became manager of natural gas marketing, which included the negotiation of transportation, gathering, processing, and sales contracts.

5. In connection with my experience in the oil and gas industry, I have had the opportunity to interpret and analyze a variety of oil and gas leases. Based on my experience, I have personal knowledge of the terms and phrases used in leases for the purpose of valuing oil and gas royalties.

6. I also have personal knowledge of industry custom and practice with respect to the calculation and payment of royalties on production of conventional gas and gas produced from shale formations.

7. My firm consults with oil and gas companies, midstream companies, interstate pipeline companies and other industry participants. My current curriculum vitae is attached as Exhibit A. I am being compensated for my time at the rate of \$400 per hour. This compensation is not dependent upon the outcome of this matter.

Expert Assignment

8. I have been asked to investigate and offer opinions as an expert in the oil and gas industry concerning the usage of terms, the customs and practices of the oil and gas industry, and the historical context that has over time, informed the common understanding of the industry. In doing so, I will offer opinions on the industry’s contractual and property arrangements for leasing

minerals, production, gathering, marketing, processing, and transportation of natural gas. I will also address the claims made by Plaintiffs and the issues those claims present with regard to certifying a class.

Investigatory Sources

9. I have relied on documents produced by Plaintiffs and Chesapeake, as well as deposition testimony in this case. I have reviewed and examined documents related to the construction and operation of midstream and interstate pipeline facilities in eastern Ohio. A part of my analysis has been to examine the various sales agreements, midstream contracts, and transportation agreements pertaining to the sale and transportation of gas from wells in which the named Plaintiffs own an interest and other wells in which the putative class members own interests.

10. In addition, I have analyzed the leases and check detail. I also reviewed industry publications and other documents that relate to the wells. A list of documents reviewed is attached as Exhibit B. Further, I have independently researched the history and development of the oil and gas industry in Ohio. I have recited the principal sources that form the basis for my opinions. I have also relied on experience gained from working in the oil and gas industry.

Summary of Opinions

My opinions are summarized below based on the information available and reviewed to date. The support and analysis for these summary opinions appear in the paragraphs following this section.

11. There are internal dissimilarities between the named Plaintiffs themselves and the proposed class members with respect to the language of the underlying leases.

12. There are also differences between the named Plaintiffs and the proposed class members concerning the type of well, the characteristics of the gas composition, and the pipeline systems to which the gas has been delivered.

13. Gas marketing, as the term is used in the industry, means to enter into a contract to sell oil or gas and to deliver the oil or gas to the contractual point of sale. A reasonable prudent operator may fulfill its obligation to market gas by selling gas to an affiliate.

14. The practice of determining a wellhead price of gas based on a netback method has a long history in the oil and gas industry.

15. Although the point of sale was at or near the wellhead in this case, the absence of express lease language restricting the netting of post-production costs means that royalties are generally paid after such netting if the point of sale is downstream of the well.

16. Plaintiffs' proposed class definition raises issues as to which royalty owners are in or out of the proposed class at a given point in time because the proposed class includes current and former royalty owners. Furthermore, Plaintiffs' use of "royalty owner" to define the proposed class does not identify all putative class members because the individual entitled to royalties under any given lease is not always the lessor. Moreover, royalty owners must be identified each month who are in or out of the proposed class.

Proposed Class Definition

17. Plaintiffs propose the following class definition in their Motion for Class Certification:

Every person except governmental entities who is, or has been, a royalty owner under an oil and gas lease in which (1) Anschutz Exploration Corporation is named as the lessee; (2) the lease was assigned or otherwise acquired by Chesapeake Exploration, L.L.C., (3) the lease conveys rights to oil, natural gas and natural gas liquids in Ohio and (4) one or more of these products was produced under the lease.¹

Plaintiffs' Interests

18. Plaintiff Dale Henceroth and former named plaintiff Melinda Henceroth entered into two leases with Anschutz Exploration Company ("Anschutz") dated July 6, 2009.² Each lease covers different lands owned by the Henceroths. While there are multiple modifications to both leases, the original royalty clause is identical. It says:

ROYALTY: To pay Lessor as Royalty, less all applicable taxes, assessments, and adjustments on production from the Leasehold, as follows:

1. OIL: To deliver to the credit of Lessor, free of cost, a Royalty of the equal one-eighth part of all oil and any constituents thereof produced and marketed from the Leasehold.

2. GAS: To pay Lessor an amount equal to one-eighth of the net proceeds realized by Lessee from the sale of all gas and the constituents thereof produced and marketed from the Leasehold. Lessee may withhold Royalty payment until such time as the total withheld exceeds twenty-five dollars (\$25.00).³

¹ Pls.' Mot. For Class Certification ¶3, ECF No. 86.

² Ex. 2 to Pls.' Mot. for Class Certification, ECF No. 86-3; Ex. 3 to Pls.' Mot. for Class Certification, ECF No. 86-4.

³ Ex. 2 to Pls.' Mot. for Class Certification at CHK_HENCEROTH_00004604, ECF No. 86-3; Ex. 3 to Pls.' Mot. for Class Certification at CHK_HENCEROTH_00004676, ECF No. 86-4.

19. The Henceroths' leases each also have an addendum. The addendum provides that in the event of a conflict between the lease and this addendum, the provision in the addendum prevails. The royalty clause was amended by the following addition:

All oil, gas or other proceeds accruing to the Lessor under paragraph 5(B) of this Lease shall be without deduction, directly or indirectly, for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and marketing the oil, gas and other products produced hereunder to transform the product into marketable form; however, any such costs which result in enhancing the value of the marketable oil, gas or other products to receive a better price may be deducted from Lessor's share of production so long as they are based on Lessee's actual cost of such enhancements. In no event shall Lessor receive a price that is less than, or more than, the price received by Lessee.⁴

20. Plaintiff Marilyn Wendt, as Trustee of the A. David Wendt and Marilyn S. Wendt Living Trust dated April 27, 2000, entered into two leases with Anschutz.⁵ The first lease is dated January 2, 2009, and pertains to 57.88 acres in Columbiana County. The second lease is dated February 1, 2009, and also includes Ms. Wendt's sister, Janet K. Cooper, and her brother, Wilford L. Copeland as lessors. The second lease pertains to 2.94 acres in Columbiana County.

21. The Wendt leases do not have an addendum like the Henceroth leases.

Overview of the Oil & Gas Industry

Oil and gas are produced at the wells, separated, and sold separately. Both may be sold at the well, in the field, or multiple points downstream of the wells. A more detailed description of the steps in the process from production to downstream sales is set forth below.

Physical Flow

22. The wells at issue in this case produce a high level of condensate, a liquid hydrocarbon. Condensate oil ("oil") wells also often produce natural gas simultaneously. After the oil and gas are produced to the surface, the stream is piped through a separator at the wellhead. The stream is then separated into oil, gas, and water. The oil and water are run into tanks on or near the well pad. Oil may be transported from the well by truck, or it may be metered into a pipeline. It is my understanding that the oil produced from the leases in this area of Ohio is generally transported

⁴ Ex. 2 to Pls.' Mot. for Class Certification at CHK_HENCEROTH_00004613, ECF No. 86-3; Ex. 3 to Pls.' Mot. for Class Certification at CHK_HENCEROTH_00004682, ECF No. 86-4.

⁵ Ex. 4 to Pls.' Mot. for Class Certification, ECF No. 86-5; Exhibit Class Leases (Part 19) to Pls.' Supplement to Mot. for Leave at CHK_HENCEROTH_00004641-47, ECF No. 80-5.

from the well pad by truck to a stabilization facility, where it may be further trucked or shipped by rail or pipeline to various sales points.

23. The separated gas is transported through a flow line (smaller diameter pipelines installed by the oil and gas company) to a meter located at the well pad. After the gas is measured and metered, it is received into a natural gas pipeline.

24. The first receiving pipeline often is part of a pipeline gathering system, which can be thought of as a spider web connecting multiple wells in a defined geographic area. The wellhead meters are receipt points into the gathering system. The gathering system aggregates volumes of unprocessed or “rich” natural gas for delivery into larger, downstream gas pipeline systems. The gathering system may be owned by the oil and gas producing company or it may be owned by a different company, known as a “midstream company” as described below. Often, but not always, the gas gathered moves across a series of pipelines by increasing pressures provided by compression. The compression boosts the pressure, making it possible to transport greater volumes in less space.

25. The gathering system may have multiple points of delivery at the terminus or it may deliver to only one point. The delivery points could be other pipelines, including other, larger gathering systems, intrastate or interstate pipelines, or gas processing plants.

26. Gas processing plants manufacture natural gas liquids by removing (through temperature changes or absorption) the entrained liquefiable hydrocarbons, such as ethane, propane, butane and natural gasoline (“NGLs”) from the methane. Methane is gas that consumers use in their homes and businesses. The separated NGLs are delivered to the tailgate (outlet) of the processing plant for transportation, typically by pipeline. If, however, NGL pipeline capacity is not available, the NGLs may be transported by truck.

Sales of Oil, Gas, and Natural Gas Liquids

27. Oil may be and is often sold on or near the well pad or in the field. It is pumped out of the tanks in which it was stored on the lease and measured before leaving the lease. For the wells at issue in this case, Chesapeake sold its oil and the oil attributable to the royalty owners to CEMLLC at the tanks on the leases.

28. When oil is sold in the field, that is, upstream of the market center, the price is adjusted for the actual stream characteristics at the location of the sale, at that upstream sales point. Price differentials indicate that the seller and buyer recognize that the value of oil at some distance from the market center is not the same as the value at the market center. The differential is not the actual costs to be borne by the seller or the buyer. Instead, differentials represent factors such as quality differences, availability of transportation outlets, volume differences, timing of the physical delivery, or other factors.

29. Natural gas may be sold at many points, including at the well as it is metered and in the condition in which it is delivered. Natural gas may also be sold at a central delivery point in the field, at the point where the gathering system connects to a downstream pipeline, at the tailgate of a gas processing plant, or at physical interconnects between transporting pipelines or at the interconnect between a pipeline and utility company. In most instances, transporting gas away from the well and selling it downstream results in an increased value. The price for natural gas may be based on a reported index price; it may be a netback from a downstream sales price; or simply a fixed price for a set volume on certain days.

30. NGLs may be sold at the inlet to a gathering system or a processing plant, within the processing plant, or at the tailgate of a gas processing plant. If sold at the tailgate of a processing plant, the NGLs are referred to in the industry as “NGLs” or “Y-Grade,” a commingled stream of liquids. The Y-Grade stream is delivered at the plant tailgate to a separate pipeline system for transport. Large volumes of the NGLs typically are transported by pipeline, but may also be sold in local markets by trucking.

31. Y-Grade may be transported to a fractionation facility where it is separated into individual components. The separated purity products, such as ethane and propane, may be sold or stored for sale at a later date. NGLs are typically sold based on a published index price for the component products at a market center near a fractionator, such as Mont Belvieu, Texas. The price is adjusted for the difference in value of the NGLs at the location at which NGLs are sold and the location for the index price.

Midstream

32. The midstream sector of the oil and gas industry grew out of the fundamental restructuring of the industry by the Federal Energy Regulatory Commission (“FERC”). Beginning in the late 1980s, the FERC embarked on a program to deregulate the purchase and sale of natural gas while retaining the regulation of the interstate pipeline companies. This had the effect of largely removing the interstate pipelines from the business of buying gas at the well, and installing gathering, compression, and processing facilities in the producing fields.

33. Deregulation, however, never changed the characteristics of natural gas or its physical flow. Pipelines still had to be constructed to receive gas from new natural gas wells, which became acutely necessary with the development of shale production, such as the Barnett Shale in Texas, and more recently, the Utica Shale in Ohio. The midstream sector surged in development due to these two factors: deregulation and shale production.

34. The midstream sector encompasses the activities that move gas and other hydrocarbons from the wells to the downstream points. It includes such things as gathering, treating, processing, storage, and pipeline transportation.

35. In some areas of the new shale development, the first midstream facilities were constructed by the exploration and production companies or an affiliate. This is not unusual given that such construction was needed to get new wells connected and the oil and gas sold, plus the uncertainty of the likely success of development and production, particularly at the outset. Later, other companies began to invest heavily in developing larger and more elaborate midstream operations to cover all aspects of receiving oil and gas at the wells, and delivering the commingled streams downstream to other transporters.

Pipeline Transportation Rates & Regulation

36. The transportation of oil, natural gas, and NGLs is subject to regulation by various local, state, and federal agencies and commissions. The transportation of natural gas in interstate commerce is governed by the FERC under the Natural Gas Act.

37. Generally, on unregulated or lightly regulated pipeline systems the company desiring transportation services (“shippers”) and the company owning the pipeline are free to negotiate the rates for the services to be provided. This is most often true on pipelines owned by midstream companies and intrastate pipeline companies.

38. Each interstate pipeline company has an approved FERC Tariff that sets forth the terms and conditions under which it offers its services and the rates for those services. Historically, the FERC approved interstate pipeline transportation rates were based on a cost-of-service methodology. The cost-of-service methodology guarantees a rate of return on a known level of investment in pipeline facilities, plus the recovery of on-going operating costs.

39. In recent years, the FERC has approved negotiated rates. This negotiation allows the pipeline companies and shippers to negotiate rates reflective of market conditions, and still allow the pipeline a reasonable rate of return. Fundamentally, the FERC has required companies seeking the approval of the construction and operation of new interstate pipelines to demonstrate that the capacity has been subscribed by shippers willing to pay demand charges sufficient to pay for the new pipeline.

40. The FERC as a matter of policy requires that any company transporting natural gas on an interstate pipeline must have title to the gas it is transporting. This is known in the industry as the “shipper-must-have-title” rule. Moreover, the FERC prohibits companies from engaging in buy/sell transactions of natural gas on interstate pipelines. The FERC implemented these rules to maintain its open-access policy and increase competition among buyers and sellers transacting business on interstate pipelines.

41. The application of the shipper-must-have-title rule in this matter means that CEMLLC as the shipper on an interstate pipeline must hold title to the natural gas being transported to downstream sales locations such as Texas.

Development of Shale Plays

42. Natural gas shale plays emerged as the most important advance in the oil and gas industry in decades beginning in the early 2000s. Rapid increase in volumes of oil and natural gas have up-ended traditional patterns of oil and gas sales, and the infrastructure used to transport oil and gas. For example, the increase in Marcellus Shale production between 2008 (at virtually nothing) to more than 20 billion cubic feet per day in 2016 totally overran the available pipeline take-away capacity in the Midwest and Eastern markets.⁶

43. In 2007, the Utica and the Marcellus accounted for 8.8% of shale gas production in the U.S. By this year, the most recent Energy Information Administration estimates indicate that these two basins will account for 47% of U.S. shale production.⁷

44. After the initial development in the shale plays proved the existence of significant oil and gas reserves, midstream companies began the construction of new infrastructure capacity. The oil and gas producing companies made the decision to commit their production to long-term midstream and transportation contracts, which secured the needed investment to build new pipeline and other facilities to increase pipeline takeaway capacity. The alternatives would have been to have production either shut-in or substantially curtailed. Without these long-term commitments, much of the value to the companies, royalty owners, and the states would not have been captured.

Leases

45. Plaintiffs leased their lands in 2009 early in the development of the Utica Shale. They agreed in the granting clause of each lease to grant, lease, and let “all the oil and gas and their constituents, whether hydrocarbon or non-hydrocarbon, underlying the land herein leased . . .”⁸ The named Plaintiffs conveyed to the lessee, Anschutz, all rights to develop and own the oil and gas. Plaintiffs use the term “well products” to describe what they contend is royalty bearing. That term is not a term recognized in the industry.

46. While it will be up to the Court to determine if the Plaintiffs reserved any “constituent” to themselves,⁹ in the custom and practice in the industry, the term “constituents” as used in the industry is understood to mean all components of the produced stream. Contrary to Plaintiffs’ contentions, it would not be customary for the royalty owner to continue to own the separated hydrocarbons and have the right to trace those components downstream to some remote location.¹⁰

⁶ The REX pipeline, which was constructed to bring gas from the Rocky Mountains to the Midwest, was partially reversed in 2015 to transport gas away from Pennsylvania and Ohio. Since then, REX has expanded its capacity in Ohio to transport more gas westward. *See, e.g., Inside FERC’s Gas Market Report*, Dec. 2, 2016.

⁷ *Inside FERC’s Gas Market Report*, Dec. 16, 2016.

⁸ *See, e.g.*, Ex. 2 to Pls. Mot. for Class Certification at CHK_HENCEROTH_00004603, ECF No. 86-3.

⁹ *See, e.g.*, Paragraphs 110 and 145 of Plaintiffs’ Second Amended Petition.

¹⁰ Plaintiffs could not lawfully transport gas on an interstate pipeline unless they entered into their own transportation agreement with the pipeline company.

Even if it were customary, Plaintiffs' assertion of rights to royalties on downstream refined products raises individual issues as described in the marketing section below.

47. The Plaintiffs have not attached an expert report or offered any form of lease review that would indicate that they or an expert reviewed each of the leases they purport to include in their proposed class. Nevertheless, they contend that the royalty obligations under the leases at issue are uniform. That is demonstrably not accurate. The two named Plaintiffs themselves do not have identical leases. Mr. Henceroth, for example, amended the royalty clauses to include a "market-enhancement" clause. Ms. Wendt did not. On its face, a market enhancement clause is not identical to a net proceeds lease.

48. Moreover, looking at the face of Mr. Henceroth's leases, it is apparent that Anschutz as lessee agreed to modify multiple provisions in its leases. For example, he struck more than one provision, and included additional terms on an addendum.¹¹ Whether other lessors negotiated variations on the royalty clause or some other amendment that could affect the royalty calculation would require a lease by lease review.

49. The royalty clause in Ms. Wendt's lease is a net proceeds provision¹² In the custom and practice in the industry, net proceeds are understood to be equal to the amount actually booked as revenue by the lessee after any post-production costs have been deducted.¹³ This has been particularly true since the advent of deregulation in the late 1980s and the prevalence of the use of net-back pricing as described in more detail below. Since the leases at issue appear all to have been negotiated in 2008 or later, the context would indicate that the use of the term "net proceeds" recognized the fact that wherever gas was sold, the royalty on gas would be based on net proceeds received by the lessee. And, of course, if Chesapeake had incurred post-production costs, those costs could be deducted under a net proceeds lease, though I understand that it has not. For gas sold at the well, gross proceeds at the wellhead would be substantially similar to a net proceeds clause.

50. Oil royalty clauses in the industry are typically different than the gas royalty clause. Like the oil royalty clauses in the named Plaintiffs' leases, oil royalty clauses often permit the lessor to take and sell his or her share of oil. When the named Plaintiffs did not elect to do so, Chesapeake sold all the oil. It is unknown at present whether other royalty owners sold their share of oil. If so, those owners would not be similarly situated to Plaintiffs.

51. Plaintiffs expound at length on their definition of "marketing." They contend that the term "marketed" in the oil and gas leases implicitly means that Chesapeake as lessee had an obligation

¹¹ See Ex. 2 to Pls.' Mot. for Class Certification, ECF No. 86-3; Ex. 3 to Pls.' Mot. for Class Certification, ECF No. 86-4.

¹² See Ex. 4 to Pls.' Mot. for Class Certification, ECF No. 86-5; Exhibit Class Leases (Part 19) to Pls.' Supplement to Mot. for Leave at CHK_HENCEROTH_00004641-47, ECF No. 80-5.

¹³ See, e.g., Williams & Meyers Manual of Oil and Gas Terms, Sixteenth Edition, December 2015.

to contract for midstream and transportation services to sell gas to third parties downstream of the wells, and to retain title to the gas until sold at multiple points downstream. This contention is completely unsupported by the common understanding in the industry. Instead, marketing is understood in the industry to mean sold. If, however, they were right, it would create even more individual issues. For example, had Chesapeake retained title to the gas and sold it downstream, the analysis of Chesapeake's fulfillment of its obligations under a net proceeds clause as compared to a market enhancement royalty clause would not necessarily be the same.

52. Based on my experience in reviewing thousands of leases, I understand the use of the lease term "marketed" to refer to the oil and gas actually saved and delivered to a meter as compared to the volumes of oil and gas produced from the wells. For example, the granting clause in the lease permits the lessee to use all the oil and gas necessary in lease operations free of cost. Therefore, the leases, as is often true, permit oil and gas to be used without the payment of royalty for certain purposes. Only the oil and gas sold is royalty bearing.¹⁴

Oil and Gas Marketing

53. Chesapeake sold the oil and gas stream to CEMLLC at or near the wellhead. Although that appears to be undisputed, Plaintiffs contend that Chesapeake's sales of oil and gas to CEMLLC did not constitute "marketing." Plaintiffs, concede, however, that the wellhead oil and gas sales contracts between Chesapeake and CEMLLC were valid for transferring title.¹⁵ If the contracts are valid for transferring title, they are equally valid to establish the sale and therefore, the marketing, of the oil and gas as the term "marketing" is understood in the industry.

54. Plaintiffs argue that post-production costs cannot be deducted by Chesapeake beyond the point of sale. Chesapeake does not make deductions for post-production expenses; it pays royalty based upon the price it receives from CEMLLC. CEMLLC's price is a netback price which includes the effect of post-production expenses. In any event, Plaintiffs' suggestion that post-production costs do not occur beyond a wellhead sales point and/or are not properly included in a wellhead sales price does not comport with the industry understanding and practice. Post-production costs describe a category of costs incurred after oil and gas are produced at the well. The term as used in the industry does not describe which entity pays the costs or where title to the oil and gas passes. Post-production costs are simply those costs paid subsequent to production. Moreover, post-production costs do not indicate whether or not the oil and gas were marketable at the well.

55. Contrary to Plaintiffs' contentions, oil and gas is marketed every day in the industry by selling it to a single purchaser at the well or on the lease, affiliated or not. Moreover, it is an

¹⁴ I note also that some of the leases permit the lessor to use substantial volumes of produced gas, upon which no royalty is due.

¹⁵ See, e.g., Pls.' Mem.in Supp. of Mot. for Class Certification at 2, ECF No. 88.

accepted custom and usage in contemporary natural gas industry for a producing entity to enter into a sales contract with a marketing company affiliated with the producer.¹⁶ Once sold, title passes to the purchaser. Gas marketing does not require a trading operation for refined products, as Plaintiffs contend. The reasonable prudent producer may and does exercise reasonable diligence to market by finding a purchaser and selling the oil and gas, which Chesapeake did.

56. Chesapeake has provided in discovery multiple contracts with midstream service providers and transportation companies pertaining to gas in eastern Ohio. These companies provide services after the point of sale between CEMLLC and Chesapeake. The agreements are examples of the activities attendant to aggregating gas volumes, arranging transportation, nominating and dispatching, resolving pipeline imbalances, managing the accounting associated with sales to customers receiving gas on multiple pipelines, and dealing with credit risks. Effectively, this allows one entity to develop the needed expertise to manage the complexities of marketing aggregated volumes of gas and refined products hundreds of miles from the production area. This practice began at the inception of deregulation in the late 1980s and continues today.

57. With respect to oil, CEMLLC paid Chesapeake Operating, L.L.C. (Chesapeake Operating), on behalf of Chesapeake, 99% of the total price received from third-party oil purchasers, less the costs of trucking, quality adjustments or any other marketing costs. Effectively, Chesapeake and the royalty owners received the benefit of prices received in arms'-length sales transactions. For example, CEMLLC sold the oil delivered from the Conklin 34-13-7 4H well in Tuscarawas County to Appalachian Oil Purchasers, LLC at a price of NYMEX WTI, less \$7.00 per barrel.¹⁷ It then paid Chesapeake 99% of the price received.

58. Plaintiffs have offered no analysis of the characteristics of the Utica oil, which tends to have a high gravity—approximately 60 degrees. As described above, Utica oil is more like condensate than crude oil. As a result, the gravity adjustment to the price will cause the Utica oil to trade at a significant discount to the West Texas Intermediate ("WTI") index price, which is based on a gravity of 40-42 degrees. Further, Plaintiffs have not shown that all of the oil is uniform in quality across the area covered by the leases at issue, which means that any contention on their part regarding the value of the oil is conjecture at best.

59. With respect to natural gas, CEMLLC pays Chesapeake Operating, on behalf of Chesapeake, a net back price. The net back price equals 97% of CEMLLC's weighted average sales price. CEMLLC's weighted average sales price is calculated by adding all revenues from downstream, arms-length sales transactions and dividing by the total volumes sold. CEMLLC

¹⁶ The Chesapeake/CEMLLC contracts themselves include terms and conditions that are usual and customary in the industry.

¹⁷ This assumes the oil had an API Gravity of 59.9 or less. Crude Oil Purchase Agreement between Chesapeake Energy Marketing, L.L.C. and Appalachian Oil Purchasers, LLC, dated November 1, 2015.

then adjusts this weighted average sales price to include the costs of transporting of the gas from the receipt points at or near the wellhead to the downstream sales points.

60. Chesapeake Operating does not factor any costs from royalty prior to the point of first sale. Chesapeake bears all costs prior to that point. And, Chesapeake Operating adds back in the 3% marketing fee on gas and the 1% marketing fee on oil paid to CEMLLC before it calculates and pays royalties, as Plaintiffs have now stipulated. As a result, CEMLLC's sales price, less its transportation and midstream services costs, is the price per MMBtu paid to royalty owners. Effectively, the royalty owners receive a price higher than the price received by Chesapeake, not an "artificial price" as contended by Plaintiffs.

61. In this matter, the quality of the gas produced from the wells varies. For example, the presence of various entrained liquefiable hydrocarbons is not uniform.¹⁸ Some wells have a high entrained liquefiable hydrocarbon content, and others have a low or average amount of entrained liquefiable hydrocarbons. And, the distribution of the potentially extractable NGLs is not uniform. This means that the value of the extracted NGLs will vary by well. (Heavier NGLs, such as pentane, are typically more valuable than lighter NGLs, such as ethane and propane.)

62. The gas from several leases is gathered on a different gathering system, which means that not all the gas has been treated the same for the purpose of calculating the price paid by CEMLLC to Chesapeake Operating on behalf of Chesapeake. Moreover, the natural gas produced by the wells was not processed at the same gas processing plants, which results in differences in the amounts of NGLs extracted. As a result, if Plaintiffs prevailed on the merits of their claims, damages could not be determined uniformly.¹⁹ It is highly likely that some owners would receive more and others less, depending upon these factors and more.

Identification of Proposed Class Members

63. Plaintiffs have filed claims on behalf of current and former royalty owners who otherwise meet their class definition. To those unfamiliar with the complications of paying royalty owners, that seems straightforward. In practice, it will not be a one-time determination. Chesapeake at the time a new well is drilled and completed retains a title attorney to review title. The title opinion lists each royalty owner and their respective interest. Chesapeake then sets up an electronic record that includes the names of the royalty owners and other information. The lease is scanned into the system. If there are no changes in ownership, the information originally input in the database remains accurate. If, however, interests are transferred or sold, such as in an estate, the original

¹⁸ Williams' gas quality tests show the McCoy 17-11-4 had a liquid content of 2.079 GPM, *see* Williams Gas Composition and Properties Report, effective July 1, 2017, while the Edie 17-13-6 had a liquid content of 7.481 GPM, *see* Williams Gas Composition and Properties Report effective June 1, 2017.

¹⁹ Plaintiffs also allege that the transportation and fractionation "charges" incurred by CEMLLC associated with NGLs were excessive (paragraph 125 of the Second Amended Petition). The price of NGLs and associated differentials will not be uniform from plant to plant.

name of the lessor as entered in the data base and associated with a lease will no longer be accurate. Subsequent ownership changes will not be matched with the original owners in the system. This means that the current pay list of royalty owners will not necessarily match the names of the lessors under the individual leases.

64. Further, the transfer of a mineral interest or a royalty interest from one owner to another may or may not carry with it the right to assert a claim for prior periods. In my experience, conveyances often include “from and after” provisions that retain all rights to any prior period adjustments in the selling owner. And, in an estate, the right to a claim for alleged underpayment of royalty is a personal property, not real property. Therefore, the individual who inherited the real property may or may not be the person entitled to the personal property. None of this is ascertainable by looking at Chesapeake’s current pay list of royalty owners. This means that Chesapeake’s records alone cannot be used to identify people who may be entitled to claim underpayment on royalties. Moreover, the owners change each month as records are updated.

65. The Wendt family presents a good example in this matter of the difficulty of identifying royalty owners. Ms. Wendt and her brother and sister agreed among themselves that as long as their mother was living, she would receive any royalties attributable to oil or gas produced and sold under their lease pertaining to the 2.94 acre lease. They attached an addendum to the lease stating that any monies payable would be sent to Dorothy Copeland for her lifetime.²⁰ Mrs. Copeland was not a royalty owner. Yet, her name will be listed on the Chesapeake pay list. Who owns the alleged claim for prior underpayments under this lease would have to be individually determined, and would not be applicable to other proposed class members.

Summary

66. In my opinion, the evaluation of underpayment or overpayment of royalties is made by comparing the amounts paid to the individual royalty owner with the amounts that should have been paid under the relevant agreements. The determination of whether Chesapeake paid royalties correctly to the named Plaintiffs and the proposed class members requires that a number of issues be considered: the terms of the leases, the type of production involved, the characteristics of the gas, the manner in which the oil or gas was transported and sold, and who is entitled to assert a claim for any alleged underpayment. Given the variation in the leases and the differences in wells, these issues cannot be resolved by simply resolving the issues as to the named Plaintiffs.

²⁰ See Exhibit Class Leases (Part 19) to Pls.’ Supplement to Mot. for Leave at CHK_HENCEROTH_00004647, ECF No. 80-5.

67. Plaintiffs did not file any expert reports prior to their Motion for Class Certification. If they subsequently file report(s), I reserve the right to review any such reports and respond by adding, supplementing, or amending the opinions expressed in this report. To the extent additional information becomes available, I reserve the right to amend or supplement these opinions as appropriate.


Kris L. Terry

EXHIBIT A

KRIS L. TERRY
KRIS TERRY & ASSOCIATES, INC.
3232 VILLANOVA
DALLAS, TEXAS 75225
214 750-1775
kt@kristerry.com

PROFESSIONAL EXPERIENCE

1989 *President*
To Present Kris Terry & Associates, Inc.

Established an oil and natural gas consulting firm to provide clients the following services: evaluating, negotiating, and documenting stock and asset acquisitions; marketing gas directly to end users; securing firm and interruptible transportation in support of direct marketing efforts; and litigation support and settlement negotiations in contract disputes and regulatory proceedings.

Represented clients in federal and private royalty audits; conducted training in organizing gas control procedures and handling imbalance penalties; represented clients in interstate pipeline Order No. 636 restructuring proceedings; assisted clients in resolving gas imbalances and negotiating gas balancing agreements.

Consulted with clients on oil and gas accounting and royalty payment matters, including proceeds accounting and market value analysis; analyzed payment records, the sale of crude oil at the lease and at market centers, gas processing and the sale of liquids; and reviewed allocation and gas control issues.

1986 to 1989 *Manager of Regulatory Affairs and Litigation*
Fina Oil and Chemical Company

Developed, obtained management approval for, and implemented the company's strategic plans for decreasing its reliance on traditional pipeline purchasers for the disposition of company production by increasing its reliance on selling gas directly to purchasers in consuming regions. Responsibilities included terminating old business relationships and negotiating new ones in furtherance of those strategic plans and participating in more than 70 FERC rate and certificate proceedings that affected the new business relationships.

Organized the company's litigation response to reductions in purchases by pipelines under long-term contracts. Selected outside counsel and testifying and consulting experts to develop and pursue claims of \$175 million against nine major interstate and intrastate pipelines. Developed and obtained management approval of strategy to litigate and settle the disputes. Directed the evaluation of gas regulatory issues and gas-related contracts in the company's \$600 million acquisition of Tenneco Oil Company's oil and gas properties in Texas and Louisiana.

1988 to 1989 *Manager of Gas Marketing*
Fina Oil and Chemical Company

Enhanced the company's direct sales of gas to northeastern LDC's, reducing its dependency on brokers from 95% of non-dedicated company production to less than 15%. Negotiated the company's first long-term, firm sales agreement with a northeastern LDC. Recruited and trained the necessary personnel to buy, ship, and resell third party gas under spot and long-term contracts.

1983 to 1986 *Manager, Gas Administration*
Fina Oil and Chemical Company

Restored consistent production from the company's most significant producing property by seeking assignments of firm capacity in HIOS and UTOS from the former interstate pipeline purchaser. Obtained FERC approval of the assignments, the first to a non-interstate pipeline shipper.

Recommended and negotiated the acquisition of facilities for the creation of a Hinshaw pipeline to serve the company's refinery in Big Spring, Texas; the construction of a second Hinshaw pipeline to serve the company's refinery in Port Arthur, Texas; and the acquisition of facilities for a third Hinshaw pipeline to serve the company's gas lift operations in Terrebonne Parish, Louisiana. Responsibilities included certificate applications and tariff filings before state regulatory agencies, budgeting and forecasting revenues, and negotiating upstream gas transportation agreements, gas supply contracts, and gas sales agreements.

1979 to 1983 *Attorney, Legal Department*
Fina Oil and Chemical Company

Designed the company's compliance program for hazardous waste disposal, including coordination of labeling and documentation standards; compiled the company's first filing in response to Superfund regulations, reporting all potential hazardous waste disposal sites.

Participated with the Assistant Treasurer in negotiating the terms of seventeen major revolving credit agreements with U.S. and foreign banks.

Assisted the General Counsel in preparation for board meetings, drafted board resolutions, and maintained corporate minutes; acted as secretary and maintained the corporate minute books for numerous subsidiaries.

EDUCATION

Juris Doctorate, University of Oklahoma, 1979
Oxford University Summer Law Program, 1977
Bachelor of Arts in History, University of Oklahoma, 1976

Honors: Am Jur Award for Conflicts
Dean's List
President's Leadership Class Scholarship

PROFESSIONAL DEVELOPMENT

Harvard Summer Program, Center for Negotiation
National Institute for Trial Advocacy
Brookings Institution, Center for Public Policy Education
Speaker, Dallas Bar Association, Texas Bar Association & University of Texas School of Law
Attendee of numerous seminars and conferences, including Public Utility Finance & Accounting

PROFESSIONAL ASSOCIATIONS

Past Council Member, State Bar of Texas Oil, Gas and Energy Resources Law Section
Chairman 2004, Energy Law Section of the Dallas Bar Association
Texas & Oklahoma Bar Associations, Energy Bar Association and Dallas Bar Association
Leadership Texas 2012

References and further data on request.

KRIS L. TERRY

SELECTED CONSULTING EXPERIENCE

1. In Re: Chesapeake Barnett Royalty Litigation #2; MDL No. 48-000000-15; In the 48th Judicial District Court of Tarrant County, Texas

Issue: Plaintiffs alleged underpayment of royalties under various leases in the Barnett Shale

Retained by: Chesapeake Exploration, L.L.C.

Testimony: Deposition (2017)
2. Richard P. Marburger, Trustee of the Olive M. Marburger Living Trust, et al. v. XTO Energy Inc; Case No. 2:15-cv-00910-DSC-CRE; In the United States District Court for the Western District of Pennsylvania

Issue: Plaintiffs alleged underpayment of royalty on a behalf of a class of royalty owners under leases located in western Pennsylvania entered into by XTO's predecessor-in-interest

Retained by: XTO Energy Inc.

Testimony: Deposition (2017)
3. John P. Ellbogen Foundation v. Ellbogen Property Management, Ltd, et al.; Civil Action No. 96858; In the District Court of Natrona County, Wyoming

Issue: Defendant transferred properties from one entity to another washing out the net profits holder

Retained by: John P. Ellbogen Foundation

Testimony: Deposition (2017)
4. In the Matter of the Appeal of WPX Energy, Inc. From a Decision by the Department of Revenue; Docket No. 2016-31; The State Board of Equalization for the State of Wyoming

Issue: The Department of Revenue disallowed firm transportation expenses incurred by WPX related to the payment of severance taxes in Wyoming

Retained by: WPX Energy, Inc.

Testimony: Hearing (2016)
5. Tony R. Whisenant v. Strat Land Exploration Co.; Case No. CJ-2014-4; In the District Court of Beaver County, Oklahoma

Issue: Plaintiff sought certification of a class alleging the Defendant underpaid royalties for natural gas production in Oklahoma

Retained by: Strat Land Exploration Co.

Testimony: Hearing (2016)

6. Paul F. Sidorek, et al. v. Chesapeake Appalachia, L.L.C.; Case #011400022578; American Arbitration Association, Commonwealth of Pennsylvania

Issue: Claimants alleged underpayment of royalties for natural gas production in Marcellus Shale

Retained by: Chesapeake Appalachia, L.L.C.

Testimony: Hearing (2016)

7. In Re: Chesapeake Barnett Royalty Litigation; MDL No. 348-000000-15; William S. Wright Jr., et al., v. Chesapeake Energy Corporation, et al.; Case No. 017-267472-13; Tarrant County; and Bettye Haynie v. Chesapeake Operating, Inc.; Case No. C2013-00376; Johnson County, Texas; Texas Mesa Vista 2000, Ltd. v. Chesapeake Operating, Inc.; Case No. 048-27136314; Tarrant County, Texas

Issue: Plaintiffs alleged underpayment of royalties for natural gas production in the Barnett Shale

Retained by: Chesapeake Operating, Inc.

Testimony: Depositions (2016)

8. Jennifer McKnight, et al. v. Linn Operating, Inc., et al.; Case No. 10-CV-00030-R; In the United States District Court for the Western District of Oklahoma

Issue: Plaintiff sought certification of a class alleging the Defendant under paid royalties for natural gas production in Oklahoma

Retained by: Linn Operating, Inc.

Testimony: Deposition (2012) and Hearing (2016)

9. Alice Colton, et al. v. Antero Resources Corporation, et al.; Case No. 2013CV030281; In the District Court of Garfield County, Colorado

Issue: Plaintiffs sought certification of a class of royalty owners claiming breach of contract under leases pertaining to the Piceance Basin

Retained by: Antero Resources Corporation

Testimony: Hearing (2015)

10. MC Oil and Gas, LLC v. Ultra Resources, Inc. and Axia Energy, LLC; Case No. 1:15-CV-00038; In the United States District Court for the District of Utah, Northern Division

Issue: Plaintiffs alleged breach of a long term crude oil sales contract and a preferential rights provision

Retained by: MC Oil and Gas, LLC

Testimony: Deposition (2015)

11. Henry Seeligson, et al. v. Devon Energy Production Company, L.P.; Case No. 2:14-CV-996-JRG-RSP; In the United States District Court for the Eastern District of Texas, Marshall Division

Issue: Plaintiffs sought certification of a class of royalty owners claiming breach of contract under leases pertaining to the Barnett Shale

Retained by: Devon Energy Production Company, L.P.

Testimony: Deposition (2015)

12. Petty Business Enterprises, L.P., et al. v. Chesapeake Exploration, LLC; Civil Action No. 5:14-CV-00834-XR; In the United States District Court for the Western District of Texas, San Antonio Division

Issue: Following two separate audits, Plaintiffs claimed the lessee breached two oil and gas leases pertaining to lands in Webb County, Texas

Retained by: Chesapeake Exploration, L.L.C.

Testimony: Deposition (2015)

13. Trinity Valley School, et al. v. Chesapeake Operating, Inc., et al.; Cause No. 3:13-CV-01082-K; In the United States District Court for the Northern District of Texas, Dallas Division

Issue: Plaintiffs claimed the lessee breached the implied covenant to market gas by not processing gas from two groups of wells in Tarrant County, Texas

Retained by: Chesapeake Operating, Inc. & Chesapeake Exploration, LLC

Testimony: Deposition (2015)

14. Betsy Mecom, et al., v. Westport Oil & Gas Company, L.P. n/k/a Kerr McGee Oil & Gas Onshore, L.P.; Cause No. 6,470; In the District Court of Zapata County, Texas, 49th Judicial District

Issue: Plaintiffs claimed breach of an oil and gas lease under a price redetermination provision tied to prices paid by Texas Intrastate Purchasers and breach of a compression agreement.

Retained by: Kerr McGee Oil & Gas Onshore, L.P.

Testimony: Deposition and Trial (2015)

15. Canaan Wildlife Preserve, Inc., et al. v. Chesapeake Energy Corporation, et al.; Case No. 2:13-CV-02064-TLB; In the U.S. District Court for the Western District of Arkansas

Issue: Plaintiffs sought certification of a class alleging the producing companies breached their oil and gas leases in Arkansas

Retained by: Chesapeake Exploration and BHP Billiton Petroleum (Arkansas)

Testimony: Affidavit (2015)

16. Union Pacific Railroad Company and Ivy Energy, Inc. v. Williams Production RMT Company LLC, et al.; Case No. 10cv31; In the District Court of Garfield County, Colorado

Issue: Plaintiffs alleged the operator had improperly withheld revenue under the joint operating agreement following a revision in ownership based on new title opinions.

Retained by: Williams Production RMT Company LLC

Testimony: Deposition (2014)

17. Phillis Ideal and Collins Partners, Ltd. v. BP America Production Company; Case No. D-0101-CV-2003-02310; In the First Judicial District Court, County of Santa Fe, New Mexico

Issue: Plaintiffs sought certification of a class alleging the Defendant underpaid royalties on coal bed methane production in New Mexico

Retained by: BP America Production Company

Testimony: Deposition (2014)

18. Panola Independent School District, et al. v. Unit Petroleum Company; Case No. CJ 2007-215; In the District Court of Latimer County, Oklahoma

Issue: Plaintiffs sought certification of a class alleging the Defendant under paid royalties for natural gas produced in three counties in Oklahoma

Retained by: Unit Petroleum Company

Testimony: Deposition and Hearing (2009) (2014)

19. Bowden, et al. v. Phillips Petroleum Company, et al., Cause No. 99-DCV-107,968-A, 268th Judicial District Court of Fort Bend County, Texas

Issue: Plaintiffs sought to certify a class action for the underpayment of royalties under multiple royalty instruments, including Gas Royalty Agreements; Bowden Plaintiffs' individual claims were the subject of the trial.

Retained by: ConocoPhillips Company

Testimony: Deposition and Class Action Certification Hearings (2000), Deposition (2010), Trial (2014)

20. Abraham, et al. v. WPX Energy Production, LLC, et al.; Case No. 12-CV-00917-JB-ACT; In the United States District Court for the District of New Mexico

Issue: Plaintiffs sought certification of a class alleging Defendant under paid royalty on gas produced from wells connected to the Williams Four Corners system in the San Juan Basin of New Mexico and Colorado

Retained by: WPX Energy Production, LLC

Testimony: Hearing (2014)

21. Amarillo National Bank, et al. v. ConocoPhillips Company; Cause No. 07-125; District Court, Moore County, Texas

Issue: Plaintiffs claim Defendant charged an excessive gathering rate on a midstream system in the Texas Panhandle and underpaid royalty

Retained by: ConocoPhillips Company

Testimony: Deposition (2014)

22. The Anderson Living Trust f/k/a The James H. Anderson Living Trust, et al. v. WPX Energy Production, LLC, et al.; Case No. 12-CV-00040-JB-LFG; In the United States District Court for the District of New Mexico

Issue: Plaintiffs sought certification of a class alleging Defendant under paid royalty on gas produced from wells in the San Juan Basin of New Mexico and Colorado

Retained by: WPX Energy Production, LLC

Testimony: Deposition and Hearing (2014)

23. Phillis Ideal, Jose E. and Clara E Gomez Living Trust and J. Fidel Candelaria v. Burlington Resources Company LP; Case No. D-0101-CV-2--3-02309; First Judicial District Court, County of Santa Fe, State of New Mexico

Issue: Plaintiffs claimed an underpayment of royalties on coal seam gas produced from wells in the San Juan Basin of New Mexico

Retained by: Burlington Resources Company LP

Testimony: Deposition (2014)

24. David Patterson, et al. v. BP America Production Company f/k/a Amoco Production Company; Case No. 03-CV-9926; In the District Court for the City and County of Denver, Colorado

Issue: Plaintiffs claimed in a class action that Amoco had underpaid royalties for the period 1986 through 1997 for gas sold in the Denver Julesburg Basin

Retained by: BP America Production Company

Testimony: Deposition and Trial (2013)

25. Regency Field Services, LLC v. Blackbrush Oil & Gas, L.P.; Cause No. 2011-CI-11310; In the 45th Judicial District Court, Bexar County, Texas

Issue: Plaintiff sought to collect past due gathering fees; Defendant counter-claimed on allocation and measurement issues

Retained by: Regency Field Services, LLC

Testimony: Deposition (2013)

EXHIBIT B
DOCUMENTS REVIEWED

Second Amended Class Action Complaint

Chesapeake Exploration, L.L.C.'s Answer and Affirmative and Other Defenses to Plaintiffs' Second Amended Complaint

Plaintiffs' Motion for Class Certification & Memorandum in Support

CELLC's Obj and Resp to Plf D. Henceroth's First Set of Interrogatories

CELLC's Obj and Resp to Plf Melinda J. Henceroth's First Set of Requests for Production

CELLC's Supp Resp to Interrogatory No. 7 of Plfs' First Set of Interrogatories

CELLC's Obj and Resp to Plf Melinda Henceroth's First Set of Interrogatories

CELLC's Obj and Resp to Plf Melinda Henceroth's First Set of Requests for Admission

Plfs' Supp Resp to Def's First Set of Requests for Production

Plfs' Supp Answers to Def's First Set of Interrogatories

CELLC's Supp Obj and Resp to Plf Melinda Henceroth's First Set of Interrogatories

CELLC's Second Supp Obj and Resp to Plf Melinda Henceroth's First Set of Interrogatories

ELLC's Obj and Resp to Plf Melinda Henceroth's Second Set of Requests for Production

Affidavits of Richard Easterly & Jeff Pinter

Midstream Service Agreements

CHK_HENCEROTH_00005149	Amended & Restated Gas Gathering Contract—Cardinal
CHK_HENCEROTH_00005224	Fuel Amendment—Cardinal
CHK_HENCEROTH_00005227	Amended & Restated Gas Gathering Contract—Cardinal
CHK_HENCEROTH_00005725	Amendment to Negotiated Rate Agreement & Negotiated Rate Agreement—Dominion Transmission, Inc.
CHK_HENCEROTH_00005483	Gas Processing and Fractionation Agreement—Utica East Ohio
CHK_HENCEROTH_00005755	Amendment Nos. 2&3 to Amended & Restated Gas Processing and Fractionation Agreement—Utica East Ohio
CHK_HENCEROTH_00005414	Service Agreement for Processing and Fractionation Services-Dominion Natrium LLC
CHK_HENCEROTH_00005773	Amended & Restated Gas Processing and Fractionation Agreement—Utica East Ohio
CHK_HENCEROTH_00005826	Measurement Agreement
CHK_HENCEROTH_00005386	Agreement for Interruptible Processing –Blue Racer (successor to Dominion East Ohio)
CHK_HENCEROTH_00005865	Amended & Restated Gas Gathering Agreement—Utica East Ohio
CHK_HENCEROTH_00005330	Gas Gathering Agreement—Dominion East Ohio
CHK_HENCEROTH_00005525	Gas Gathering Agreement—Utica East Ohio
CHK_HENCEROTH_00005378	Second Amendment to Gas Gathering Agreement—Blue Racer
CHK_HENCEROTH_00006269	Amendment No. 1 to Amended & Restated Gas Gathering Agreement—Utica East Ohio

Sales Contracts

CHK_HENCEROTH_00005098	Oil Purchase and Sale Contract—All States COI/CEMI
CHK_HENCEROTH_00005110	Amendment to CEMI/COI Oil Purchase and Sale Contract dated March 4, 2003
CHK_HENCEROTH_00005110	Amendatory Agreement—COI/CEMI dated December 1, 2010
CHK_HENCEROTH_00005136	Crude Oil Purchase Agreement—Enlink Midstream—November 1, 2015
CHK_HENCEROTH_00005082	NAESB CELLC/CEMI
CHK_HENCEROTH_00005123	Agency Agreement CELLC/COI
CHL_HENCEROTH_00006944	Gathering Contract List.xlsx
CHK_HENCEROTH_00006945	Henceroth Class Leases and Counties.xlsx

Gas Quality Analysis—Williams
Class Leases

Named Plaintiffs' Leases, Addenda & Memoranda
Section 1509.11 of Ohio Revised Code

Quarterly Statement of Production for Horizontal Shale Wells (Form 10-H)

Inside FERC's Gas Market Report, 12/2/2016, 12/16/2016, 8/25/17

<https://www.eia.gov/todayinenergy/detail.php?id=32512> "Natural Gas Pipeline Projects Lead to Smaller Price Discounts in Appalachian Region"

Maps

CHK_HENCEROTH_00006942	Utica_Overview_20170111
CHK_HENCEROTH_00006943	Map of Utica Gathering (10-31-2014)

Payment Detail

CHK_HENCEROTH_00006559_CONFIDENTIAL.XLXS
CHK_HENCEROTH_00006560_CONFIDENTIAL.XLXS
CHK_HENCEROTH_00006561_CONFIDENTIAL.XLXS
CHK_HENCEROTH_00006562_CONFIDENTIAL.XLXS

Depositions:

Chris Sorrels
Janet Cooper
Wilford Copeland
Marilyn Wendt
Dale Henceroth
Melinda Henceroth